INTERNATIONAL JOURNAL OF

CHEMICAL KINETICS

VOLUME 29, 1997

EDITOR:

DAVID M. GOLDEN

ASSOCIATE EDITOR:

GREGORY P. SMITH

ASSOCIATE EDITOR:

RIPUDAMAN MALHOTRA

EDITORIAL ADVISORY BOARD

1997

Roger Atkinson
University of California
Riverside (USA)

Joseph W. Bozzelli
New Jersey Institute
of Technology (USA)

Richard J. Field
University of Montana (USA)

Alan S. Rodgers
Texas A & M University (USA)

Paul Roth
Universität Duisburg (Germany)

Karen E. Wetterhahn†
Dartmouth College
New Hampshire (USA)

1998

Philippe Dagaut
C.N.R.S., Orleans (France)

Barbara Finlayson-Pitts
University of California
Irvine (USA)

M. Niyaz Khan
Universiti Maloya (Malaysia)

H. Matsui
University Tokyo (Japan)

J. V. Michael
Argonne National Laboratory
Illinois (USA)

C. F. Wells
University of Birmingham (U.K.)

1999

Netkal M. M. Gowda
Western Illinois University (USA)

Horst Hippler
Universität Karlsruhe (Germany)

Ole John Nielsen
Risø National Laboratory (Denmark)

Stanley Sander
Jet Propulsion Laboratory (USA)

J. C. Scaiano
University of Ottawa (Canada)

Timothy Wallington
Ford Motor Company (USA)

Sidney W. Benson, Editor Emeritus, University of Southern California (USA)

† Deceased June 8, 1997

The *International Journal of Chemical Kinetics* (ISSN: 0538-8066) is published monthly, one volume per year, by John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158.

Copyright © 1997 John Wiley & Sons, Inc. All rights reserved. No part of this publication may be reproduced in any form or by any means, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the publisher, or authorization through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923; (508) 750-8400; fax (508) 750-4470. Periodicals postage paid at New York, NY, and at additional mailing offices.

The code and copyright notice appearing at the bottom of the first page of an article in this journal indicate the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal use of specific clients, on the condition that the copier pay for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Such permission requests and other permission inquiries should be addressed to the Permissions Dept.

Subscription price (Volume 29, 1997): $1,556.00 in US, $1,676.00 in Canada and Mexico, $1,754.00 outside North America. All subscriptions outside US will be sent by air. Payment must be made in US dollars drawn on a US bank. Claims for undelivered copies will be accepted only after the following issue has been received. Please enclose a copy of the mailing label. Missing copies will be supplied when losses have been sustained in transit and where reserve stock permits. Please allow four weeks for processing a change of address. For subscription inquires, please call (212) 850-6645 or e-mail: SUBINFO@wiley.com

Postmaster: Send address changes to *International Journal of Chemical Kinetics*, Susan Swanson, Director, Subscription Fulfillment and Distribution, Subscription Department, John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158.

Advertising Sales: Inquiries concerning advertising should be forwarded to Susan Levey, Advertising Sales, John Wiley & Sons, 605 Third Avenue, New York, NY 10158. Tel: (212) 850-8832. Advertising Sales, European Contact: Michael Levermore, Advertising Sales Manager, John Wiley & Sons, Ltd., Baffins Lane, Chichester, Sussex PO19 1UD, England.

Reprints: Reprint sales and inquires should be directed to the customer service department, John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10158. Tel: (212) 850-8776.

The contents of this journal are indexed in the following: *Biological Abstracts, BIOSIS, Chemical Abstracts, Chemical Titles, Current Contents/Physical, Chemical and Earth Sciences, Engineering Index, Research Alert (ISI), Science Citation Index (ISI), and SCISEARCH Database (ISI).*

Other correspondence: Address all other correspondence to: International Journal of Chemical Kinetics, Publisher, Interscience Division, Professional, Reference, and Trade Group, John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158.

Manuscripts should be submitted to the Editor, Dr. David M. Golden, Department of Chemical Kinetics, SRI International, 333 Ravenswood Avenue, Menlo Park, California 94025. Information for contributors appears in the first and last issue of each volume.

Editorial Production, John Wiley: Joseph Landolfi

⊗ This paper meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).

International Journal of Chemical Kinetics
Author Index to Volume 29

Al-Awadi, N. A.
—; El-Dusouqui, O. M. E.; Mathew, T.: Gas-Phase Pyrolytic Reactions. Part 6. [1] Behavior of Ethyl (Hetero)arylcarboxylate Esters in Thermal Elimination Reactions, 289
—; El-Dusouqui, O. M. E.: Pyrolysis of β-Hydroxyketones and α-Ketoesters: Gas-Phase Elimination Kinetics of 3-Hydroxy-3-Methyl-2-Butanone and Methyl Benzoylformate, 295
Alfano, A. J.
—; Gas-Phase Pyrolysis Mechanism and Kinetics of 3-Chloroquadricyclane, 689
Ali, S. I.
—; Majid, K.: Photoreactivity of Diethanolamine With Octacyanomolybdate(IV) and -Tungstate(IV), 819
Alshehri, S.
—; Burgess, J.; Parsons, S. A.; Casey, A. T.: Kinetics of Substitution at *bis*-Cyclopentadienylvanadium Dichloride, 835
Almira, M. F. See Zaghloul, A. A., 311
Ananda, S.
—; Demappa, T.; Made Gowda, N. M.: Oxidation of Primary Amines by Bromamine-B Catalyzed by Osmium(VIII) in Alkaline Medium: A Kinetic and Mechanistic Study, 737
—; Jagadeesha, M. B.; Venkatesha, B. M.; Made Gowda, N. M.: Kinetics of Oxidation of Indigo Carmine by N-Sodio-N-Bromotoluenesulfonamide in Acidic Buffer Medium, 453
Andrés-Ordax, F. J. See Arrizabalaga, A., 181
Aranda, A. See Martinez, E., 927
Arey, J. See Kwok, E. S. C., 645
—; See Kwok, E. S. C., 299
Argüello, G. A. See Chiappero, M. S., 155
Ariya, P. A. See Catoire, V., 695
Arrizabalaga, A.
—; Andrés-Ordax, F. J.; Fernández-Aránguiz, M. Y.; Peche, R.: Kinetic Studies on the Permanganic Oxidation of Amino Acids. Effect of the Length of Amino Acid Carbon Chain, 181
Arthur, N. L.
—; Cooper, I. A.; Miles, L. A.: Kinetic Isotope Effect for the Reaction of H Atoms with GeH_4 and GeD_4, 237
Aruna, K.
—; Maikyamba, P.: Linear Free Energy Relationships in the Kinetic Study of Oxidation of Phenols by Quinolinium Dichromate, 437
Atkinson, R. See Kwok, E. S. C., 645
—; See Kwok, E. S. C., 299
—; Atmospheric Reactions of Alkoxy and β-Hydroxyalkoxy Radicals, 99

Badini, R. G. See Chiappero, M. S., 155
Baklanov, A. V.
—; Chesnokov, E. N.; Chichinin, A. I.: Rate Constants for the Reactions of Molecular Iodine with Cl, $SiCl_3$, and SiH_3 at 298 K, 25
Balado, A. M.
—; Jimenez, F. S.; Martin, F. J. P.; Castellanos, R. V.: Kinetics and Mechanism of the Oxidation of Butane-2,3-Diol by Alkaline Hexacyanoferrate (III), Catalyzed by Ruthenium Trichloride, 1
Ball, J. C. See Maricq, M. M., 421
Bandow, H. See Kakesu, M., 933
Banerjee, P. See Saha, B., 224
Banerji, K. K. See Vyas, V. K., 9
Baraj, E. See Torrero, M. E., 261
Barry, J.
—; Locke, G.; Scollard, D.; Sidebottom, H.; Treacy, J.; Clerbaux, C.; Colin, R.; Franklin, J.: 1,1,1,3,3,-Pentafluorobutane (HFC-365mfc): Atmospheric Degradation and Contribution to Radiative Forcing, 607
Baxley, J. S.
—; Henley, M. V.; Wells, J. R.: The Hydroxyl Radical Reaction Rate Constant and Products of Ethyl 3-Ethoxypropionate, 637
Benson, S. See Vasileiadis, S., 915
Berndt, D. C.
—; Pamment, M. G.; Fernando, A. C. M.; Zhang, X.; Horton, W. R.: Micellar Kinetics in Aqueous Acetonitrile. Part A. Sodium-Hydrogen Ion-Exchange Constant for 1-Dodecanesulfonate Surfactant. Part B. Substrate Structural Effects for Micellar Catalysis by Perfluorooctanoic Acid as Reactive Counterion Surfactant, 729
Berndt, T.
—; Böge, O.: Gas-Phase Reaction of NO_3 Radicals

International Journal of Chemical Kinetics, Vol. 29, 945–951 (1997)

© 1997 John Wiley & Sons, Inc.

CCC 0538-8066/97/012945-07

With Isoprene: A Kinetic and Mechanistic Study, 755
Bernhard, M. J. See Si, J., 349
Bo, Z.
—; Shen, Y.: Transformation Kinetics of Liquid-Crystallines Based on 1,4-Phenylene 4-*n*-Alkylbenzoate-4-Allyloxybenzoate by DSC, 317
Böge, O. See Berndt, T., 755
Bowman, C. T. See Röhrig, M., 781
Boyd, A. A.
—; Lesclaux R.: The Temperature Dependence of the Rate Coefficients for β-Hydroxyperoxy Radical Self Reactions, 323
Bozzelli, J. W.
—; Chang, A. Y.; Dean, A. M.: Molecular Density of States from Estimated Vapor Phase Heat Capacities, 161
Bozzelli, J. W. See Zhong, X., 893
Brauers, T.
—; Finlayson-Pitts, B. J.: Analysis of Relative Rate Measurements, 665
Brown, N. J.
—; Li, G.; Koszykowski, M. L.: Mechanism Reduction Via Principal Component Analysis, 393
Burcat, A.
—; Dvinyaninov, M.: Detailed Kinetics of Cyclopentadiene Decomposition Studied in a Shock Tube, 505
Burgess, J. See Alshehri, S., 835
Burkholder, J. B. See Mauldin, III, R. L., 139
Byrn, S. R. See Shalaev, E. Y., 339

Cabañas, B. See Martinez, E., 927
Cabrera, M. See Castro, E. A., 113
Calle, E. See Fernández-Liencres, M. P., 119
Calogirou, A. See Glasius, M., 527
Camarero, L. M.
—; Peche, R.; Collado, A.: Kinetic Study of the Oxidation of Indigocarmine by Hydrogen Peroxide with Ferrous and Ferric Ions in Acid Medium, 575
Campbell, M. L. See Harter, J. S. S., 367
Campos, A. M.
—; Lissi, E. A.: Kinetics of the Reaction between 2,2′-Azinobis (3-Ethylbenzothiazoline-6-Sulfonic Acid (ABTS) Derived Radical Cations and Phenols, 219
Carroll, H. F. See Lifshitz, A., 839
Casado, J., See Fernández-Liencre, M. P., 119
—; See Gil, R., 495
Casas, I. See Torrero, M. E., 261
Casey, A. T. See Alshehri, S., 835
Castellanos, R. V. See Balado, A. M., 1
Castro, E. A.
—; Cabrera, M.; Santos, J. G.: Structure—Reactivity Correlation in the Reactions of Pyrrolidine with O-Ethyl S-Aryl Dithiocarbonates in Aqueous Ethanol, 113
Catoire, L.
—; Woiki, D.; Roth, P.: A Shock Tube Study of the Reaction of H Atoms with $SiCl_4$, 469
—; Woiki, D.; Roth, P.: Kinetics of the Initiation Step of the Thermal Decomposition of $SiCl_4$, 415
Catoire, V.
—; Ariya, P. A.; Niki, H.; Harris, G. W.: FTIR Study of the Cl- and Br-Atom Initiated Oxidation of Trichloroethylene, 695
Chang, A. Y. See Bozzelli, J. W., 161
Chesnokov, E. N. See Baklanov, A. V., 25
Chiappero, M. S.
—; Badini, R. G.; Argüello, G. A.: Quenching of $I(^2P_{1/2})$ by R—OH Compounds. Influence of the Alkyl Group on the Quenching Efficiency, 155
Chichinin, A. I. See Baklanov, A. V., 25
Chlebicki, J.
—; Shiman, L. Y.; Guskov, A. K.; Makarov, M. G.; Shvets, V. F.: The Kinetics and Mechanism of the Reaction between 1-Chloro-2,3-Epoxypropane and *p*-Cresol in the Presence of Basic Catalysts, 73
Chuchani, G.
—; Dominguez, R. M.; Rotinov, A.; Martin, I.: The Gas-Phase Pyrolysis of Several Aliphatic 1,3-Diols. The Kinetic and Mechanism of 2,4-Dimethyl-2,4-Pentanediol, 851
Clerbaux, C. See Barry, J., 607
Colin, R. See Barry, J., 607
Collado, A. See Camarero, L. M., 575
Cooper, I. A., See Arthur, N. L., 237
Counioux, J. J. See Elkhatib, M., 89

Davidson, D. F. See Röhrig, M., 781
—; See Röhrig, M., 483
Davidsson, J. See Olsson, B. E. R., 195
De Pablo, J. See Torrero, M. E., 261
Dean, A. M. See Bozzelli, J. W., 161
Del Mar Graciani, M.
—; Rodríguez, M. A.; Moyá, M. L.: Study of the Ligand Substitution Reaction $Fe(CN)_5H_2O^{3-}$ + Pyrazine in Micellar Solutions, 377
Delalu, H. See Elkhatib, M., 89
Demappa, T. See Ananda, S., 737
Dhanya, S.
—; Saini, R. D.: Rate Constants of OH Radical Reactions in Gas Phase with Some Fluorinated Compounds: A Correlation with Molecular Parameters, 187
Dill, M. See Tyndall, G. S., 41
Dominguez, R. M. See Chuchani, G., 851

Dutta, A. See Saha, B., 224
Dvinyaninov, M. See Burcat, A., 505

Egsgaard, H. See Sehested, J., 627
—; See Wiegall, M. R., 745
El-Dusouqui, O. M. E. See Al-Awadi, N. A., 289
—; See Al-Awadi, N. A., 295
Elkhatib, M.
—; Marchand, A.; Peyrot, L.; Counioux, J. J.; Delalu, H.: Halogenation and Amination Dual Properties of Haloamines in Raschig Environment: A Chlorine Transfer Reaction between Chloramine and 3-Azabicyclo[3,3,0]Octane, 89
Erdik, E.
—; Kâhya, D.: Kinetic Role of *Tert*-Amines in the Osmium Tetroxide Catalyzed Trimethylamine N-Oxide Dihydroxylation of Cyclohexene, 359

Fagerström, K. See Sehested, J., 673
Fei, R. See North, S. W., 127
Fernández-Aránguiz, M. Y. See Arrizabalaga, A., 181
Fernández-Liencres, M. P.
—; Calle, E.; González-Mancebo, S.; Casado, J.; Quintero, B.: Nitrosation Kinetics of Phenolic Components of Foods and Beverages, 119
Fernando, A. C. M. See Berndt, D. C., 729
Finlayson-Pitts, B. J. See Brauers, T., 665
Flagan, R. C. See Tse, C. W., 523
Franklin, J. See Barry, J., 607

Gangopadhyay, S. See Saha, B., 224
Garrett, B. C. See Miller, J. A., 275
Gil, R.
—; Casado, J.; Izquierdo, C.: Structural Effects on the *N*-Nitrosation of Amino Acids, 495
Giménez, J. See Torrero, M. E., 261
Glasius, M.
—; Calogirou, A.; Jensen, N. R.; Hjorth, J.; Nielsen, C. J.: Kinetic Study of Gas-Phase Reactions of Pinonaldehyde and Structurally Related Compounds, 527
Golden, D. M.
—; In Memoriam (Prof. Karen E. Wetterhahn), 727
Gonzales, D.
—; Analytical Models for State-Specific Diatomic Dissociation Rate Coefficients, 791
Gonzalez, M. C.
—; Mártire, D. O.: Kinetics of $O^{\cdot -}$ and $O_3^{\cdot -}$ in Alkaline Aqueous Solutions of Hydrogen Peroxide, 589
González-Mancebo, S. See Fernández-Liencres, M. P., 119
Grosjean, D. See Grosjean, E., 855
Grosjean, E.
—; Grosjean, D.: A Kinetic and Product Study of the Gas-Phase Reaction of Ozone With Vinylcyclohexane and Methylene Cyclohexane, 855
Guskov, A. K. See Chlebicki, J., 73
Gutbrod, R.
—; Meyer, S.; Rahman, M. M.; Schindler, R. N.: On the use of CO as Scavenger for OH Radicals in the Ozonolysis of Simple Alkenes and Isoprene, 717

Hake, A. See Weber, M., 149
Hall, G. E. See North, S. W., 127
Hall, C. D. See Pérez-Pla, F. F., 561
Hallquist, M. See Olsson, B. E. R., 195
Hamed, E. A.
—; Nucleophilic Substitution at the Pyridine Ring. Kinetics of the Reaction of 2-Chloro-3,5-Dinitropyridine with Arylthiolates in Methanol, 515
Hamed, E. A.
—; Nucleophilic Substitutions at the Pyridine Ring: Kinetics of the Reaction of 2-Chloro-3-Nitro and 2-Chloro-5-Nitropyridines with Piperidine and Morpholine in Methanol and Benzene, 599
Hanson, R. K. See Röhrig, M., 781
—; See Röhrig, M., 483
Harding, R. H. See Watson, B. A., 545
Harris, G. W. See Catoire, V., 695
Harter, J. S. S.
—; Campbell, M. L.; McClean, R. E.: Depletion Kinetics of Low-Lying States of Tungsten in the Presence of NO, N_2O, and SO_2, 367
Henley, M. V. See Baxley, J. S., 637
Hessler, J. P.
—; The Use of Monte Carlo Simulations to Evaluate Kinetic Data and Analytic Approximations, 803
Hjorth, J. See Glasius, M., 527
Holbrook, K. A. See Starkey, D. P., 231
Holcman, J. See Jacobsen, F., 17
Horie, O.
—; Neeb, P.; Moortgat, G. K.: The Reactions of the Criegee Intermediate CH_3CHOO in the Gas-Phase Ozonolysis of 2-Butene Isomers, 461
Horton, W. R. See Berndt, D. C., 729
Housseini, S. See Pérez-Pla, F. F., 561
Hsu, C.-C. See Thaxton, A. G., 245
Hurley, M. D. See Meagher, R. J., 619
Hurley, M. D. See Tyndall, G. S., 655

Izquierdo, C. See Gil, R., 495

Jacobsen, F.
—; Holcman, J.; Sehested, K.: Activation Parameters of Ferryl Ion Reactions in Aqueous Acid Solutions, 17
Jagadeesha, M. B. See Ananda, S., 451

Jensen, N. R. See Glasius, M., 527
Jimenez, F. S. See Balado, A. M., 1

Khan, Z. See Rafiquee, M. Z. A., 131
Kâhya, D. See Erdik, E., 359
Kaiser, E. W. See Tyndall, G. S., 41
Kakesu, M.
—; Bandow, H.; Takenaka, N.; Maeda, Y.; Washida, N.: Kinetic Measurements of Methyl and Ethyl Nitrate Reactions with OH Radicals, 933
Kamiya, K. See Tsuchiya, K., 57
Karayannis, M. I. See Lafis, S., 385
Khalil, M. M. See Zaghloul, A. A., 311
Khan, M. N.
—; Kinetic Evidence for the Occurence of General Acid-Base Catalysis in N-Methylhydroxylaminolysis of N-Ethoxycarbonylphthalimide (NCPH), 647
Kiefer, J. H.
—; Sathyanarayana, R.: Vibrational Relaxation and Dissociation in the Perfluoromethyl Halides, CF_3Cl, CF_3Br, and CF_3I, 705
Klein, M. T. See Watson, B. A., 545
Klemm, L. H.
—; Orchin, M.: Kinetics of Reduction of Cinnamaldehyde by Means of Hydrido- and Deuteridocobalt Tetracarbonyl, 473
Koch, R.
—; Palm, W.-U.; Zetzsch, C.: First Rate Constants for Reactions of OH Radicals with Amides, 81
Konidari, C. N. See Lafis, S., 385
Kornweitz, H. See Persky, A., 67
Koszykowski, M. L. See Brown, N. J., 393
Kothari, S. See Vyas, V. K., 9
Krishna Rao, G. See Subba Rao, P. V., 171
Kumaran, S. S.
—; Su, M.-C.; Michael, J. V.: Thermal Decomposition of CH_3I Using I-Atom Absorption, 535
Kwok, E. S. C.
—; Atkinson, R.; Arey, J.: Erratum to "Kinetics of the Gas-Phase Reactions of Indan, Indene, Fluorene, and 9,10-Dihydroanthracene with OH Radicals, NO_3 Radicals, and O_3, 645
Kwok, E. S. C.
—; Atkinson, R.; Arey, J.: Kinetics of the Gas-Phase Reactions of Indan, Indene, Fluorene, and 9,10-Dihydroanthracene with OH Radicals, NO_3 Radicals, and O_3, 299

Lacombe, S. See Robert-Banchereau, E., 825
Lafis, S.
—; Konidari, C. N.; Veltsistas, P. G.; Tzerpos, N.; Karayannis, M. I.: Kinetic Study of the Fast Step of the Alkaline Hydrolysis of *p*-Chloranil Using Stopped Flow Technique, 385
Larsen, N. W. See Wiegell, M. R., 745
Lavabre, D. See Robert-Banchereau, E., 825
Le Bras, G. See Le Calvé, S., 683
Le Calvé, S.
—; Le Bras, G.; Mellouki, A.: Kinetic Studies of OH Reactions with *Iso*-Propyl, *Iso*-Butyl, *Sec*-Butyl, and *Tert*-Butyl Acetate, 683
Lee, S. M. See Roecker, L., 333
Lesclaux, R. See Boyd, A. A., 323
Li, G. See Brown, N. J., 393
Lifshitz, A.
—; Tamburu, C.; Carroll, H. F.: Thermal Ignition of Acetonitrile. Experimental Results and Kinetic Modeling, 839
Lin, M. C. See Thaxton, A. G., 245
Lissi, E. A. See Campos, A. M., 219
Liu, L. See Roecker, L., 333
Ljungström, E. See Olsson, B. E. R., 195
Locke, G. See Barry, J., 607

Made Gowda, N. M. See Ananda, S., 451
—; See Ananda, S., 737
—; See Ramachandra, H., 773
Maeda, Y. See Kakesu, M., 933
Mahadevappa, D. S. See Ramachandra, H., 773
Mahmoud, G. See Sehested, J., 673
Majid, K. See Ali, S. I., 819
Makarov, M. G. See Chlebicki, J., 73
Mandal, P. C. See Ray, K., 269
Manikyamba, P. See Aruna, K., 437
Marchand, A. See Elkhatib, M., 89
Maricq, M. M.
—; Ball, J. C.; Straccia, A. M.; Szente, J. J.: A Diode Laser Study of the Cl + CH_3CO Reaction, 421
Markgraf, S. J.
—; Wells, J. R.: The Hydroxyl Radical Reaction Rate Constants and Atmospheric Reaction Products of Three Siloxanes, 445
Martin, I. See Chuchani, G., 851
Martin, P. See Martinez, E., 927
Martín, F. J. P. See Balado, A. M., 1
Martinez, E.
—; Cabañas, B.; Aranda, A.; Martin, P.; Salgado, S.: A Temperature Dependence Study of the Gas-Phase Reaction of the Nitrate Radical with 3-Fluoropropene Followed by Laser Induced Fluorescence Detection, 927
Mártire, D. O. See Gonzalez, M. C., 589
Mathew, T. See Al-Awadi, N. A., 289
Matsui, H. See Tsuchiya, K., 57
Mauldin, III, R. L.
—; Burkholder, J. B.; Ravishankara, A. R.: The Reaction of $O(^3P)$ with OClO, 139
McClean, R. E. See Harter, J. S. S., 367

McIntosh, M. E. See Meagher, R. J., 619
Meagher, R. J.
—; McIntosh, M. E.; Hurley, M. D.; Wallington, T. J.: A Kinetic Study of the Reaction of Chlorine and Fluorine Atoms with HC(O)F at 295 ± 2 K, 619
Meller, R.
—; Moortgat, G. K.: The Reaction of Photochemically Generated CF_3O Radicals with CO, 579
Mellouki, A. See Le Calvé, S., 683
Meyer, S. See Gutbrod, R., 717
Michael, J. V. See Kumaran, S. S., 535
Micheau, J. C. See Robert-Banchereau, E., 825
Miles, L. A. See Arthur, N. L., 237
Miller, J. A.
—; Garrett, B. C.: Quantifying the Non-RPKM Effect in the $H + O_2 \rightleftarrows OH + O$ Reaction, 275
Miller, J. A.
—; Walch, S. P.: Prompt NO: Theoretical Prediction of the High-Temperature Rate Coefficient for $CH + N_2 \rightarrow HCN + N$, 253
Møgelberg, T. E.
—; Sehested, J.; Wallington, T. J.; Nielsen, O. J.: Atmospheric Chemistry of HFC-134a: Kinetics of the Decomposition of the Alkoxy Radical CF_3CFHO, 209
Møgelberg, T. See Sehested, J., 673
Moortgat, G. K. See Horie, O., 461
—; See Meller, R., 581
Moyá, M. L. See Del Mar Graciani, M., 377
Mukherjee, D. C. See Ray, K., 269

Natarajan, K.
—; Woiki, D.; Roth, P.: N-Atom Measurements in High Temperature C_2N_2/NO/Ar Reaction Systems, 33
Nayak, A. K.
—; Sarkar, S. K.: Hydrogen Isotope Exchange Between Pentafluoroethane and Water: Kinetics and Equilibrium, 767
Neeb, P. See Horie, O., 461
Nielsen, C. J. See Glasius, M., 527
Nielsen, O. J. See Møgelberg, T. E., 209
—; See Sehested, J., 627
Niki, H. See Catoire, V., 695
North, S. W.
—; Fei, R.; Sears, T. J.; Hall, G. E.: CN Radical Reaction Rate Measurements by Time-Resolved FM Spectroscopy, 127

Oldershaw, G. A. See Starkey, D. P., 231
Ollivier, J. See Robert-Banchereau, E., 825
Olsson, B. E. R.
—; Hallquist, M.; Ljungström, E.; Davidsson, J.: A Kinetic Study of Chlorine Radical Reactions with Ketones by Laser Photolysis Technique, 195
Orchin, M. See Klemm, L. H., 473
Orlando, J. J. See Tyndall, G. S., 41
—; See Tyndall, G. S., 655

Palm, W.-U. See Koch, R., 81
Palou, J. See Pérez-Pla, F. F., 561
Pamment, M. G. See Berndt, D. C., 729
Parsons, S. A. See Alshehri, S., 835
Peche, R. See Arrizabalaga, A., 181
—; See Camarero, L. M., 575
Pedersen, T. See Wiegell, M. R., 745
Pérez-Pla, F. F.
—; Housseini, S.; Palou, J.; Hall, C. D.: Kinetics and Mechanism of the Protonation of 6-(Triphenylphosphonio-3′-Cyclopentadienyl)-2,3,5-Trihalocyclohexa-2,5-Diene-1,4-Dione by Trifluoroacetic Acid in Aprotic Media, 561
Persky, A.
—; Kornweitz, H.: The Kinetics of the Reaction $F + H_2 \rightarrow HF + H$. A Critical Review of Literature Data, 67
Petersen, E. L. See Röhrig, M., 781
—; See Röhrig, M., 483
Peyrot, L. See Elkhatib, M., 89
Pires, M.
—; Rossi, M. J.: The Heterogeneous Formation of N_2O in the Presence of Acidic Solutions: Experiments and Modeling, 869
Platz, J. See Sehested, J., 627

Quintero, B. See Fernández-Liencres, M. P., 119

Rafiquee, M. Z. A.
—; Shah, A.; Ud-Din, K.; Khan, Z.: Kinetics of the Interaction of Cd(II)-Histidine Complex with Ninhydrin in Absence and Presence of Cationic and Anionic Micelles, 131
Rahman, M. M. See Gutbrod, R., 717
Rajendiran, N.
—; Swaminathan, M.: Excited State Proton Transfer Kinetics of 4-Hydroxydiphenyl Ether, 861
Ramachandra, H.
—; Mahadevappa, D. S.; Rangappa, K. S.; Made Gowda, N. W.: Ruthenium(III)-Catalyzed Mechanistic Studies of Oxidation of Benzhydrols by Sodium *N*-Chloro-*p*-Toluenesulfonamide in HCl Medium, 773
Ramakrishna, K. See Subba Rao, P. V., 171
Rambabu, G. See Subba Rao, P. V., 171
Rangappa, K. S. See Ramachandra, H., 773
Ravishankara, A. R. See Mauldin, III, R. L., 139
Ray, K.
—; Mandal, P. C.; Mukherjee, D. C.: Electron Transfer Oxidation Kinetics of $Na_2[Mo_2O_4EDTA]$ by $S_2O_8^{2-}$ Ion in Dilute Acid Medium, 269

Robert-Banchereau, E.
—; Lacombe, S.; Ollivier, J.; Micheau, J. C.; Lavabre, D.: Kinetic Modeling of the Photooxidation of Dimethyldisulfide in the Liquid Phase, 825
Rodríguez, M. A. See Del Mar Graciani, M., 377
Roecker, L.
—; Lee, S. M.; Liu, L.; Sun, L. J.; Zaerpoor, K.: Analysis of First-Order Kinetic Data by a Differential Technique, 333
Röhrig, M.
—; Petersen, E. L.; Davidson, D. F.; Hanson, R. K.: A Shock Tube Study of the Pyrolysis of NO_2, 483
—; Petersen, E. L.; Davidson, D. F.; Hanson, R. K.; Bowman, C. T.: Measurement of the Rate Coefficient of the Reaction $CH + O_2 \rightarrow$ Products in the Temperature Range 2200 to 2600 K, 781
Rossi, M. J. See Pires, M., 869
Roth, P. See Catoire, L., 415
—; See Catoire, L., 469
—; See Natarajan, K., 33
Rotinov, A. See Chuchani, G., 851

Saha, B.
—; Dutta, A.; Gangopadhyay, S.; Banerjee, P.: Kinetics and Mechanism of the Oxidation of Some Carboxylates by a Nickel(III) Oxime-Imine Complex, 224
Saini, R. D. See Dhanya, S., 187
Salgado, S. See Martinez, E., 927
Santos, J. G. See Castro, E. A. 113
Sarkar, S. K. See Nayak, A. K., 767
Sathyanarayana, R. See Kiefer, J. H., 705
Satyanarayana, A. See Subba Rao, P. V., 171
Schindler, R. N. See Gutbrod, R., 717
Scollard, D. See Barry, J., 607
Sears, T. J. See North, S. W., 127
Sehested, J. See Møgelberg, T. E., 209
Sehested, J.
—; Sehested, K.; Platz, J.; Egsgaard, H.; Nielsen, O. J.: Oxidation of Dimethyl Ether: Absolute Rate Constants for the Self Reaction of CH_3OCH_2 Radicals, the Reaction of CH_3OCH_2 Radicals with O_2, and the Thermal Decomposition of CH_3OCH_2 Radicals, 627
Sehested, J.
—; Møgelberg, T.; Fagerström, K.; Mahmoud, G.; Wallington, T. J.: Absolute Rate Constants for the Self Reactions of HO_2, CF_3CFHO_2, and CF_3O_2 Radicals and the Cross Reactions of HO_2 with FO_2, HO_2 with CF_3CFHO_2, and HO_2 with CF_3O_2 at 295 K, 673
Sehested, K. See Sehested, J., 627
—; See Jacobsen, F., 17
Seinfeld, J. H. See Tse, C. W., 523
Shah, R. A. See Rafiquee, M. Z. A., 131
Shalaev, E. Y.
—; Byrn, S. R.; Zografi, G.: Single-Phase and Heterophase Solid-State Chemical Kinetics of Thermally Induced Methyl Transfer in Tetraglycine Methyl Ester, 339
Shen, Y. See Bo, Z., 317
Shi, J.
—; Bernhard, M. J.: Kinetic Studies of Cl-Atom Reactions with Selected Aromatic Compounds Using the Photochemical Reactor-FTIR Spectroscopy Technique, 349
Shiman, L. Y. See Chlebicki, J., 73
Shvets, V. F. See Chlebicki, J., 73
Sidebottom, H. See Barry, J., 607
Starkey, D. P.
—; Holbrook, K. A.; Oldershaw, G. A.; Walker, R. W.: Kinetics of the Reactions of Hydroxyl Radicals (OH) and of Chlorine Atoms (Cl) with Methylethylether over the Temperature Range 274–345 K, 231
Straccia, A. M. See Maricq, M. M., 421
Stuhl, F. See Weber, M., 149
Su, M.-C. See Kumaran, S. S., 535
Subba Rao, P. V.
—; Krishna Rao, G.; Ramakrishna, K.; Rambabu, G.; Satyanarayana, A.: Kinetics of Some Electron-Transfer Reactions of Iron(III)-2,2′-Bipyridyl Complex. Micellar Effect of Sodium Dodecyl Sulphate, 171
Sun, L. J. See Roecker, L., 333
Swaminathan, M. See Rajendiran, N., 861
Szente, J. J. See Maricq, M. M., 421

Takenaka, N. See Kakesu, M., 933
Tamburu, C. See Lifshitz, A., 839
Thaxton, A. G.
—; Hsu, C.-C.; Lin, M. C.: Rate Constant for the $NH_3 + NO_2 \rightarrow NH_2 + HONO$ Reaction: Comparison of Kinetically Modeled and Predicted Results, 245
Torrero, M. E.
—; Baraj, E.; De Pablo, J.; Giménez, J.; Casas, I.: Kinetics of Corrosion and Dissolution of Uranium Dioxide as a Function of pH, 261
Treacy, J. See Barry, J., 607
Tse, C. W.
—; Flagan, R. C.; Seinfeld, J. H.: Rate Constants for the Gas-Phase Reaction of the Hydroxyl Radical with a Series of Dimethylbenzaldehydes and Trimethylphenols at Atmospheric Pressure, 523
Tsuchiya, K.
—; Kamiya, K.; Matsui, H.: Studies on the Oxidation Mechanism of H_2S Based on Direct Examination of the Key Reactions, 57

Tyndall, G. S.
—; Orlando, J. J.; Wallington, T. J.; Dill, M.; Kaiser, E. W.: Kinetics and Mechanisms of the Reactions of Chlorine Atoms with Ethane, Propane, and *n*-Butane, 41
—; Orlando, J. J.; Wallington, T. J.; Hurley, M. D.: Pressure Dependence of the Rate Coefficients and Product Yields for the Reaction of CH_3CO Radicals with O_2, 655
Tzerpos, N. See Lafis, S., 385

Ud-Din, K. See Rafiquee, M. Z. A., 131

Vakhtin, A. B.
—; Kinetics and Mechanism of the $CF_3 + NO_2$ Reaction at T = 298 K, 203
Vasileiadis, S.
—; Benson, S. W.: Kinetics of the Reaction: $H + HI \rightarrow H_2 + I$ At 298 K and Very Low Pressures, 915
Veltsistas, P. G. See Lafis, S., 385
Venkatesha, B. M. See Ananda, S., 451
Vyas, V. K.
—; Kothari, S.; Banerji, K. K.: Correlation Analysis of Structure and Reactivity in the Oxidation of Substituted Benzyl Alcohols by *Bis*(2,2′-Bipyridyl) Copper(II) Permanganate, 9

Walch, S. P. See Miller, J. A., 253
Walker, R. W. See Starkey, D. P., 231
Wallington, T. J. See Møgelberg, T. E., 209
—; See Meagher, R. J., 619
—; See Tyndall, G. S., 41
—; See Tyndall, G. S., 655
—; See Sehested, J., 673
Washida, N. See Kakesu, M., 933
Watson, B. A.
—; Klein, M. T.; Harding, R. H.: Catalytic Cracking of Alkylcyclohexanes: Modeling the Reaction Pathways and Mechanisms, 545
Weber, M.
—; Hake, A.; Stuhl, F.: Temperature Dependence of the Rate Constants of the Reactions of Oxygen Atoms with 1-Pentene, 1-Hexene, *cis*-2-Pentene, and *trans*-2-Pentene, 149
Wells, J. R. See Baxley, J. S., 637
—; See Markgraf, S. J., 445
Wiegell, M. R.
—; Larsen, N. W.; Pedersen, T.; Egsgaard, H.: The Temperature Dependence of the Exchange Reaction Between Oxygen Atoms and Dioxygen Molecules Studied by Means of Isotopes and Spectroscopy, 745
Woiki, D.
—; See Catoire, L., 415
—; See Catoire, L., 469
—; See Natarajan, K., 33

Zaerpoor, K. See Roecker, L., 333
Zaghloul, A. A.
—; Khalil, M. M.; Amira, M. F.: Aquation Kinetics of Chloropentamminecobalt (III) Perchlorate in Dicarboxylate Media Containing 10% (v/v) Acetone, 311
Zaghloul, A. A.
—; Solvent Effects on the Kinetics of Aquation of κ-Chloro(diethylenetriamine) (ethylenediamine)cobalt(III) Ion in Mixed Aqueous Solvents, 431
Zetzsch, C. See Koch, R., 81
Zhang, X. See Berndt, D. C., 729
Zhong, X.
—; Bozzelli, J. W.: Thermochemical and Kinetic Analysis on the Addition Reactions of H, O, OH, and HO_2 with 1,3 Cyclopentadiene, 893
Zografi, G. See Shalaev, E. Y., 339

International Journal of Chemical Kinetics
Subject Index to Volume 29

Absolute rate coefficient, 927
Acid-base catalysis, 647
Acidic solutions, 869
Alkaline hydrolysis, of *p*-chloranil, 385
Amination, 89
Amino acids, *N*-nitrosation, 495
Anionic micelles, 131
Aquation, of $[Co(dien)(en)Cl]^{2+}$, 431
Aquation kinetics, 311
Aqueous Acid Solutions, 17
Atmospheric degradation, 607
Atmospheric degradations, of alkanes and alkenes, 99

β-hydroxyperoxy radicals, 323

Catalytic Cracking, 545
Catalytic hydrogenation, of cinnamaldehyde, 473
Cationic micelles, 131
Chemical activation, 893
Combustion temperatures, 791
Complexation of aqueous solution, 819
Computer-interfaced chemistry, 333
Criegee intermediate, 461

Decomposition, 209
Depletion kinetics, 367
Diatomic molecules, 791
Discharge flow technique, 927
Dissolution, of UO_2, 261
Dyes, 561

Electron Spin Resonance, 385
Electron-transfer reactions, 171
Exchange reaction, 745
Excited state proton exchange, 861
Exhaust conditions, 869

First-order kinetic data, analyzing, 333
Flue gas, 869
FTIR/environmental chamber techniques, 655

Gas-phase elimination reactions, 295
Gas-phase ozonolysis, 717
Gas-phase pyrolysis, 689, 851
Gas-phase reactions, 41, 127, 187, 523, 527, 665, 855, 927
Gas-phase reactions, between methylethylether and hydroxyl radicals (OH), 231
Gas-phase reactions, between methylethylether and chlorine atoms (Cl), 231
Gas-phase reactions, of NO_3 radicals, 299, 755
Gas-phase reactions, of O_3, 299
Gas-phase reactions, of OH radicals, 299
Gas-phase thermal elimination, 289

Halogenation, 89
Heat capacity, 161
Heterogeneous processes, 869
Hydrofluorocarbons, 187
Hydroxyl radical (OH) reaction rate constant, 445

I-atom atomic resonance absorption spectrometric (ARAS) technique, 535
Ignition delay times, 839
Infrared spectroscopy, 421
Irradiation, 825

Ketones, 195
Kinetic analysis, 893
Kinetic isotope effect, 237

Laser induced fluorescence detection of NO_3, 927
Laser photolysis technique, 195
Laser photolysis-infrared chemiluminescence detection technique, 25
Laser photolysis-laser magnetic resonance technique, 25
Laser photolysis-long path transient absorption technique, 139
Laser-flash photolysis/UV absorption technique, 323
Laser-induced fluorescence technique, 367
LIF detection system, 927
Ligand substitution reaction, 377
Liquid-crystallines, 317

Mechanism reduction, 393
Micellar system, 729
Molecular density of states, 161
Monte Carlo simulation techniques, 803
Monte Carlo simulations, 665

N-Atom Measurements, 33
N-nitrosation, of amino acids, 495
Nitrosation Kinetics, 119
Non-RRKM behavior, 275
Nucleophilic substitutions, 599

International Journal of Chemical Kinetics, Vol. 29, 953–954 (1997)

© 1997 John Wiley & Sons, Inc.

CCC 0538-8066/97/012953-02

Oxidation, 1, 9, 17, 57, 695, 737, 773
Oxidation, of phenols, 437
Oxidation, of indigo carmine (IC), 451
Oxidation of carboxylates, 225
Oxygen atoms, 149
Ozonolysis, of *cis*-2-butene isomers, 461
Ozonolysis, of *trans*-2-butene isomers, 461

Permanganic oxidation, 181
pH, 261
pH 5 buffer medium, 451
Phenols, 217
Phenols, oxidation, 437
Photochemical reactor-FTIR spectroscopy technique, 349
Photolysis experiments, 581, 589
Photooxidation, 825
Principal component analysis, 393
"Prompt-NO" phenomenon, 253
Protium-deuterium exchange, 767
Protonation, 561
Pseudo-first-order rate constants, 647
Pseudo-phase ion exchange model, 729
Pulse radiolysis, 627, 673
Pulse radiolysis transient VIS-UV absorption absolute rate technique, 209
Pulsed photolysis, 237
Pyridine ring, 515
Pyrolysis, of NO_2, 483

QRRK treatment, 893
Quadruple mass spectrometry, 915
Quenching process, 155

Radiative Forcing, 607
Radical Cation, 217
Rare gas atoms, 791
Rate coefficient, 781
Rate coefficients, 195
Rate constants, 25, 81, 149, 231, 237, 245, 523, 527, 627, 745
Rate parameters, 803
Reaction rate coefficients, 933
Relative rate coefficients, 655
Relative rate measurements, 665
Relative rate method, 933
Relative rate technique, 445, 619, 637

Self-reaction kinetics, 323
Shock tube experiments, 483
Shock waves, 469
Shock were, 505
Sodium-hydrogen ion exchange constant, 729
Solid-state reactions, 339
Solvent effects, 431
State-specific dissociation rate coefficient, 791
Stopped flow spectrophotometry, 385
Substitution, 835
Surfactant catalytic effects, 729

Temperature dependence, 323, 745
Thermal decomposition, of silicon tetrachloride, 415
Thermal decomposition, 535
Thermal rate coefficient, 253
Thermochemical kinetics analysis, 893
Thermodynamic properties, of intermediates in 1,3 cyclopentadiene decomposition, 893
Time dependence, 421
Time resolved UV absorption spectroscopy, 627, 673
Time-resolved frequency-modulation spectroscopy, 127
Transformation kinetics, 317
Tropospheric half-life for 3-fluoropropene, 927

Unimolecular dissociation, 705
Unimolecular dissociation pathway, 893

"Very low pressure reactor" (VLPR) kinetic technique, 915
Vibrational relaxation, 705

International Journal of Chemical Kinetics
Index of Compounds to Volume 29

Acetonitrile, 839
Aliphatic 1,3-diols, 851
Alkaline hexacyanoferrate (III), 1
Alkaline solutions, 589
Alkenes, 927
Alkoxy radicals, 99
Alkylcyclohexanes, 545
Amides, 81
Amino acids, oxidation, 181
Aqueous *tert*-butyl alcohol, 359
2,2′-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) (ABTS), reaction with phenols, 217

β-hydroxyalkoxy radicals, 99
Benzhydrol, 773
bis(2,2′-bipyridyl) copper(II), 9
bis-cyclopentadienylvanadium dichloride, 835
Br-initiated oxidation, 695
Bromamine-B, 737
2-Butene isomers, 461

C_2H_4, reaction with CN, 127
C_2N_2/NO/Ar reaction systems, 33
Carboxylates, oxidation, 224
Cd(II)-histidine complex, 131
$CF_3 + NO_2$ reaction, 203
CF_3CFHO radical, decomposition, 209
CF_3CFHO_2 radicals, 673
CF_3O radicals, 581
CF_3O_2 radicals, 673
$CH + O_2 \rightarrow$ products, 781
CH-radical concentration, 781
CH_3CO radicals, 655
CH_3I, thermal decomposition, 535
CH_3OCH_2 radicals, 627
1-cyclohexyloctane, 545
Chloramine-T (CAT), 773
Chlorine atoms, 619
2-chloro-3,5-dinitropyridine **1**, 515
1-chloro-2,3-epoxypropane with *p*-cresol, 73
3-chloroquadricyclane [1], 689
Cinnamaldehyde (**CA**), 473
cis-2-pentene, 149
Cl, reaction with molecular iodine, 25
$Cl + CH_3CO \rightarrow CH_2CO + HCl$ reaction, 421
Cl atoms, gas-phase reactions, 41
Cl atoms, 231
Cl radicals, reaction with ketones, 195
Cl-atom reactions, 349
Cl-initiated oxidation, 695
$[Co(NH_3)_5Cl]^{2+}$, in dicarboxylate media, 311
CN, reaction with C_2H_4, 127
1,3 cyclopentadiene, 893
Cyclopentadiene, 893
Cyclopentadiene ring, 561
Cyclopentadiene decomposition, 505

$DCo(CO)_4$ (**DT**), reaction with cinnamaldehyde (**CA**), 473
Diethanolamine, 819
2,4-dimethyl-2,4-pentanediol, 851
Dimethylbenzaldehydes, 523
Dimethyldisulfide (DMDS), 825
Dioxygen molecules, 745

Electron transfer oxidation kinetics, 269
Ethanol, 113
Ethyl (Hetero)arylcarboxylate esters, thermal elimination reactions, 289
Ethyl 3-ethoxypropionate, 637
Ethylcyclohexane, 545
Ethyl nitrates, 933

$F + H_2 \rightarrow HF + H$, rate constants, 67
$Fe(CN)_5H_2O^{3-}$ + pyrazine $\rightarrow$ $Fe(CN)_5pyrazine^{3-}$ + H_2O, 377
Fe^{2+}, 17
Ferric salts, 575
Ferrous salts, 575
Fluorine atoms, 619
3-fluoropropene, 927
3-fluoropropene, tropospheric life time, 927

$H + O_2 \rightleftarrows OH + O$ reaction, 275
H atoms, 237, 469
1-hexene, 149
H radicals, 893
H reaction with 1,3 cyclopentadiene, 893
H reaction with HI, 915
H_2S, 57
$HCo(CO)_4$ (**HT**), reaction with cinnamaldehyde (**CA**), 473
HO_2 radicals, 673

International Journal of Chemical Kinetics, Vol. 29, 955–956 (1997)

© 1997 John Wiley & Sons, Inc.

CCC 0538-8066/97/012955-02

HO_2 reaction with 1,3 cyclopentadiene, 893
HONO as intermediate in N_2O formation, 869
Hydrogen ion concentration, 269
Hydrogen peroxide, 575, 589
4-hydroxydiphenyl ether, 861
Hydroxyl radical, 607, 637, 717
$H + HI \rightarrow H_2I$ reactions, 915
3-hydroxy-3-methyl-2-butanone, 295

$I(^2P_{1/2})$, quenching, 155
Indigo carmine, 451
Indigocarmine (IDS), 575
Iron(III)-2,2′-bipyridyl complex, electron-transfer reactions, 171
iso-butyl acetate, 683
iso-propyl acetate, 683

m-cresol, 119
Metal ion concentration, 269
Methyl benzoylformate, 295
Methyl transfer, 339
Methylene cyclohexane, 855
Methyl nitrates, 933

4-*n*-alkybenzoate-4-alkyloxybenzoate (PABAOB), 317
N-methylhydroxylamine buffer, 647
N_2O, gas-phase reactivity, 367
N_2O, formation of, through heterogeneous processes, 869
NH_2Cl, 89
$NH_3 + NO_2 \rightleftharpoons NH_2 + HONO$ reaction, 245
Nickel(III) oxime-imine complex, 224
Ninhydrin, 131
NO, gas-phase reactivity, 367
NO_2, pyrolysis, 483
NO_2 decay, 245
NO_3 detection by LIF, 927
NO_3 radicals, gas-phase reactions, 299, 755
NO_3 reaction with 3-fluoropropene, 927

O reaction with 1,3 cyclopentadiene, 893
$O(^3P) + OClO$, 139
o-cresol, 119
O-ethyl S-(X-phenyl) dithiocarbonates, 113
O_3, gas-phase reactions, 299
Octacyanomolybdate (IV), 819
Octacyanotungstate (IV), 819
OH radical reactions, 683
OH radicals, 81, 187, 231, 893, 933
OH radicals, gas-phase reactions, 299
OH reaction with 1,3 cyclopentadiene, 893
OH reaction with ethyl nitrate, 933
OH reaction with methyl nitrate, 933
O radicals, 893
Osmium(VIII), 737
Oxygen atoms, 745
Ozone, 855

p-chloranil, alkaline hydrolysis, 385
p-cresol, 119
1,1,1,3,3-pentafluorobutane, 607
Pentafluoroethane, 767
1-pentene, 149
Perfluoromethyl halides, 705
Phenol, 119
Pinonaldehyde, 527
Pyridine ring, 599
Pyrrolidine, 113

Ru(III), 1

$S_2O_8^{2-}$ ion concentration, 269
sec-butyl acetate, 683
$SiCl_3$, reaction with molecular iodine, 25
$SiCl_4$, thermal decomposition, 415
$SiCl_4$, 469
SiH_3, reaction with molecular iodine, 25
Siloxanes, 445
SO_2, gas-phase reactivity, 367
Sodium *N*-chloro-*p*-toluenesulfonamide, 773

tert-amines, 359
tert-butyl acetate, 683
trans-2-pentene, 149
Trimethylphenols, 523

UO_2, dissolution, 261
Unsaturated carbons, 893

Vinylcyclohexane, 855